REMARKS

The Official Action dated October 29, 2002 has been carefully considered. The changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present amendment, claims 1-15 have been cancelled, and claims 16-38 have been added. A new abstract was also provided, as requested by the Examiner. Newly added claims 19-22, 25, 28-29, and 32-33 include limitations from original claims 3-6, 8, 10-11, and 13-14, respectively. Claims 16 and 37 include limitations from original claim 1; claims 17-18 include limitations from original claim 2; claims 23 and 24 include limitations from original claim 7; claims 26 and 27 include limitations from original claim 9; claims 30 and 31 include limitations from original claim 12; claims 34-36 include limitations from original claim 15. Claim 38 includes limitations from original claim 1 and the specification at page 9, second paragraph. The newly added abstract includes limitations from the original abstract and from claim 1. Since it is believed that these changes do not involve any introduction of new matter, entry is believed to be in order and is respectfully requested.

Claim Objection

The Examiner objected to claim 2 due to the following informality: line 2 recited "3 to 2 300", rather than "3 to 2300". By the present amendment, claim 2 has been cancelled. Applicants respectfully request that this objection be withdrawn.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1-15 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner asserted, *inter alia*, that claim 1 is confusing and unclear, as the recited formula for poly (alkylene glycol) ether appears to encompass not only alkyl ethers,

but other ethers as well as esters: the Examiner specifically pointed to the definition for the substituents of R_3. The Examiner also asserted that the claims contain various informalities. This rejection is traversed and reconsideration is respectfully requested.

Applicants submit that the newly added claims, claims 16-38 are definite and overcome the informalities asserted by the Examiner. With respect to the formula, as R_3 is a hydrocarbon chain, the formula defines ethers, not esters. That the hydrocarbon chain may be substituted does not cause the compounds to be esters. Reconsideration of the rejection under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Rejection under 35 U.S.C. § 102(b) - Romano et al '093

Claims 1-12, and 15 were rejected under 35 U.S.C. § 102(b) as being anticipated by Romano et al WO 97/31093 ("Romano et al '093") . The Examiner, referring to the abstract, the examples 1-6 on pages 21-22, and the claims, asserted that Romano et al '093 discloses a disinfecting composition comprising a disinfecting agent comprising peroxy bleach, an antimicrobial essential oil or active thereof, a poly (alkylene glycol) ether, and a preferred hydrophobic nonionic surfactant. The Examiner further asserted that the reference provides for the inclusion of conventional additives used in disinfecting compositions that anticipate the present claims.

However, as will be set forth in detail below, Applicants submit that the liquid disinfecting compositions defined by claims 16-38 are novel over and patentably distinguishable from Romano et al '093. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

More particularly, as defined by claim 16, a liquid disinfecting composition according to one embodiment of the invention comprises an effective disinfecting amount of a

disinfecting material and either one or a mixture of poly (alkylene glycol) ethers having the following formula: R_1-O-$(CH_2$-$CHR_2O)_n$-R_3. R_1 and R_2 are each independently hydrogen or a substituted or unsubstituted, saturated or unsaturated, linear or branched hydrocarbon chain having from 1 to 30 carbon atoms or a hydroxy bearing linear or branched hydrocarbon chain having from 1 to 30 carbon atoms, R_3 is a substituted or unsubstituted, saturated or unsaturated, linear or branched hydrocarbon chain having from 1 to 30 carbon atoms or a hydroxy bearing linear or branched hydrocarbon chain having from 1 to 30 carbon atoms, and n is greater than 2. R_1 and R_2 cannot both be hydrogen.

Claim 37 recites a liquid disinfecting composition comprising an effective disinfecting amount of a disinfecting material and either one or a mixture of poly (alkylene glycol) ethers having the formula listed above. According to claim 37, R_1 and R_2 are each independently hydrogen or a substituted or unsubstituted, saturated or unsaturated, linear or branched hydrocarbon chain having from 1 to 30 carbon atoms or a hydroxy bearing linear or branched hydrocarbon chain having from 1 to 30 carbon atoms, R_3 is a substituted or unsubstituted, saturated or unsaturated, linear or branched hydrocarbon chain having from 1 to 4 carbon atoms or a hydroxy bearing linear or branched hydrocarbon chain having from 1 to 4 carbon atoms, and n is greater than 2.

According to another embodiment of the present invention, as recited in claim 38, a liquid disinfecting composition comprises an effective disinfecting amount of a disinfecting material and 0.001% to 10%, by weight of the total composition, of a component selected from the group consisting of poly (propylene glycol) mono butyl ether, poly(ethylene glycol-co-propylene glycol) mono butyl ether, poly (ethylene glycol) dimethyl ether, poly (ethylene glycol-co-propylene glycol) dimethyl ether, poly (ethylene glycol) stearate and mixtures thereof.

Romano et al '093 disclose disinfecting compositions comprising a peroxygen bleach, an amphoteric surfactant, glutaraldehyde, and an antimicrobial essential oil or an active thereof (abstract). Applicants do not find, however, any reference to or suggestion of the poly (alkylene glycol) ethers as defined by claims 16 and 37. Furthermore, Applicants find no mention or suggestion of the poly (alkylene glycol) ethers recited in claim 38.

Although Romano et al '093 broadly teach that disinfecting compositions may comprise peroxygen bleach, amphoteric surfactant, glutaraldehyde, and an antimicrobial essential oil or an active thereof, Applicants find no teaching or suggestion in Romano et al `093 that such disinfecting compositions would be improved by the addition of a poly (alkylene glycol) ether identified in claims 16 and 37. Furthermore, Applicants find no teaching or suggestion that such disinfecting compositions would be improved by the incorporation of the specific compounds recited in claim 38.

One skilled in the art will recognize that the compositions disclosed by Romano et al '093 differ substantially from the disinfecting compositions defined by claims 16-38. The disinfecting compositions recited in claim 16 require poly (alkylene glycol) ether of a defined formula. Similarly, the disinfecting compositions recited in claim 37 recite poly (alkylene glycol) ether of a defined formula. Claim 38 recites a disinfecting composition comprising a component selected from the group consisting of poly (propylene glycol) mono butyl ether, poly (ethylene glycol-co-propylene glycol) mono butyl ether, poly (ethylene glycol) dimethyl ether, poly (ethylene glycol-co-propylene glycol) dimethyl ether, poly (ethylene glycol) stearate, or mixtures thereof. Applicants find no such disclosure in the Romano et al '093 reference.

While the Examiner refers to Examples 1-6 of Romano et al `093, these examples do not appear to employ an ether as required by any of claims 16, 37 or 38. While additional

examples of Romano et al `093 employ Dobanol 23.3 and/or Dobanol 91.10, the Romano et al `093 specification demonstrates at page 14 that neither of these Dobanol products correspond with the ethers required by the present claim 16, wherein R_1 and R_2 cannot both be hydrogen, the ethers required by claim 37, wherein R_3 is a hydrocarbon chain having from 1 to 4 carbon atoms, or the ethers specified in claim 38.

Anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claims be found, either expressly or inherently described, in a single prior art reference, *In re Robertson*, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999). In view of the deficiencies in the Romano et al '093 teachings, Romano et al '093 do not anticipate the present claims. Applicants therefore submit that the 35 U.S.C. § 102 rejection based on Romano et al '093 has been overcome. Reconsideration is respectfully requested.

Rejection under 35 U.S.C. § 102(b) - Evers et al

Claims 1-4, 9-13 and 15 were rejected under 35 U.S.C. § 102(b) as being anticipated by Evers et al WO 97/42276 ("Evers et al"). The Examiner referenced examples 1-11 of Evers et al, asserting that these examples teach nonstreaking, disinfecting, hard surface cleaners comprising a hydrophilic non-ionic surfactant that can be a poly (alkylene glycol) alkyl ether and an alcohol for cleaning surfaces that anticipate the instant claims.

However, as will be set forth in detail below, Applicants submit that the liquid disinfecting compositions defined by claims 16-38 are novel over and patentably distinguishable from those disclosed by Evers et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The compositions recited in claim 16, claim 37, and 38 are discussed above. Claims 16 and 37 recite liquid disinfecting compositions comprising an effective disinfecting amount

of a disinfecting material and either one or a mixture of poly (alkylene glycol) ethers having defined formulas. Claim 38, recites a liquid disinfecting composition comprising, *inter alia*, 0.001% to 10%, by weight of the total composition, of a component selected from the group consisting of poly (propylene glycol) mono butyl ether, poly(ethylene glycol-co-propylene glycol) mono butyl ether, poly (ethylene glycol) dimethyl ether, poly (ethylene glycol-co-propylene glycol) dimethyl ether, poly (ethylene glycol) stearate and mixtures thereof.

Evers et al '093 disclose hard surface cleaning compositions comprising a hydrophilic nonionic surfactant in combination with a selected alcohol, and further in combination with a sulfated anionic surfactant (abstract). The Examiner has asserted that the hydrophilic non-ionic surfactant can be a poly (alkylene glycol) alkyl ether. Evers et al discloses that suitable hydrophilic nonionic surfactants include alkoxylated alcohols, preferably ethoxylated alcohols or propoxylated alcohols (page 3, last paragraph; page 4, first paragraph). Examples 1-11 of Evers et al employ specific ethoxylated alcohols. However, Applicants find no disclosure relating to poly (alkylene glycol) ethers as defined in claim 16, wherein R_1 and R_2 cannot both be hydrogen, or as defined in claim 37, wherein R_3 is a hydrocarbon chain having from 1 to 4 carbon atoms. Furthermore, Applicants find no mention of the poly (alkylene glycol) ethers recited in claim 38.

Although Evers et al broadly teach that disinfecting compositions may comprise hydrophobic nonionic surfactant, Applicants find no teaching or suggestion in Evers et al that such disinfecting compositions would be improved by the addition of a poly (alkylene glycol) ether as defined in claims 16 and 37. Furthermore, Applicants find no teaching or suggestion that such disinfecting compositions would be improved by the incorporation of the specific compounds recited in claim 38.

One skilled in the art will recognize that the compositions disclosed by Evers et al '093 differ substantially from the disinfecting compositions defined by claims 16-38. The disinfecting compositions recited in claim 16 require a poly (alkylene glycol) ether of a defined formula. Similarly, the disinfecting compositions recited in claim 37 recite a poly (alkylene glycol) ether of a defined formula. Claim 38 recites a disinfecting composition comprising a component selected from the group consisting of poly (propylene glycol) mono butyl ether, poly (ethylene glycol-co-propylene glycol) mono butyl ether, poly (ethylene glycol) dimethyl ether, poly (ethylene glycol-co-propylene glycol) dimethyl ether, poly (ethylene glycol) stearate, or mixtures thereof. Applicants find no such disclosure in the Evers et al reference.

Anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claims be found, either expressly or inherently described, in a single prior art reference, *In re Robertson*, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999). In view of the deficiencies in the Evers et al teachings, Evers et al does not anticipate the present claims. Applicants therefore submit that the 35 U.S.C. § 102 rejection based on Evers et al has been overcome. Reconsideration is respectfully requested.

Furthermore, Applicants submit that claims 16-38 are nonobvious over Evers et al . References relied upon to support a rejection under 35 U.S.C. §103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public, *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). In view of the failure of Evers et al to teach or suggest incorporation of a poly (alkylene glycol) ether as defined in the embodiments of claims 16 and 37, and in view of the failure to teach or suggest incorporation of the specific compounds recited in claim 38, Evers et al do not support a rejection under 35 U.S.C. § 103.

Rejection under 35 U.S.C. § 103(a) - Romano et al '093, in view of Romano et al '106

Claims 13-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Romano et al '093 as applied to claims 1-12 and 15, above, and further in view of Romano et al WO 97/25106 ("Romano et al '106"). The Examiner asserted that Romano et al '106 teaches disinfecting compositions in the form of the primary reference composition packaged in a spray dispenser (page 19) and impregnated into wipes (top paragraph of page 20).

However, Applicants submit that claims 16-38 are nonobvious over Romano et al '093 in view of Romano et al `106. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The deficiencies of Romano et al `093 are discussed above. Romano et al `106 do not resolve these deficiencies as Applicants filed no teaching or suggestion by Romano et al `106 of compositions comprising ethers of the formulas recited in claims 16 and 37, or of a type as recited in claim 38.

As previously discussed, references relied upon to support a rejection under 35 U.S.C. §103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public, *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). The failures of Romano et al '093 are not remedied by the combination with Romano et al '106. In view of the failure of Romano et al '093 and '106 to teach or suggest incorporation of a poly (alkylene glycol) ether as defined in claims 16 and 37, and in view of the failure to teach or suggest incorporation of the specific compounds recited in claim 38, Romano et al '093 and '106 do not support a rejection under 35 U.S.C. § 103. Applicants therefore submit that the 35 U.S.C. § 103 rejection based on Romano et al '093 in view of Romano et al '106 has been overcome. Reconsideration is respectfully requested.

Conclusion

It is therefore submitted that the disinfecting compositions defined by claims 16-38 are novel, nonobvious, and patentably distinct over Romano et al '093, Evers et al, and Romano et al `093 in view of Romano et al '106, whereby the rejections under 35 U.S.C. §§ 102 and 103 have been overcome. It is believed that the above represents a complete response to the Examiner's rejections under 35 U.S.C. §§ 102 and 103 and the Examiner's informality objection, and places the present application in condition for allowance. Reconsideration and an early allowance are respectfully requested.

Respectfully submitted,

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